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October 28, 2004

Ann Marshall Young, Chairman
Administrative Judge
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Washington, D.C. 20555-0001

Anthony J. Baratta
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Thomas S. Elleman
Administrative Judge
5207 Creedmoor Road # 101
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Re: In the Matter of Duke Energy Corporation
Catawba Nuclear Station, Units 1 and 2
Docket Nos. 50-413-OLA, 50-414-OLA

Dear Administrative Judges:

Discussions at the October 25, 2004 pre-hearing conference on the security contention have made it apparent that there has been some misunderstanding about the schedule for the mixed oxide ("MOX") fuel lead assembly program. Duke Energy Corporation ("Duke") apologizes if it has failed to clearly communicate any information to the Licensing Board concerning this schedule. We also feel it important to summarize and clarify the schedule for the sake of the record. We respectfully request that the Licensing Board continue to factor this information into its plans and schedules.

Duke plans to deploy the four MOX fuel lead assemblies at Catawba Unit 1 for the next operating cycle (C1C16). Catawba Unit 1 is scheduled to shutdown for refueling in early May 2005. C1C16 startup is scheduled for early June 2005. The exact refueling dates are proprietary and sensitive information. The requested license amendment for the MOX fuel lead assemblies, however, is clearly needed prior to receipt of the MOX fuel at Catawba and prior to the refueling outage. There are also other considerations that impact the schedule. These are discussed below.

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Catawba 1 Cycle 16 (C1C16) Core Design

Cycle-specific core design is a complex process that begins approximately 18 months prior to each refueling outage. Not only must a cycle loading pattern be developed, but each fuel rod in the core must be checked for conformance with steady-state, transient, and accident limits. The process involves thousands of core calculations at expected operating conditions, hypothetical extreme operating conditions, and hypothetical accident conditions. Core conditions must be checked for conformance to safety analyses, and, if necessary, safety analyses must be revised to ensure that regulatory acceptance criteria are met.

The core design process is well underway for C1C16. Duke is proceeding with a C1C16 cycle design that incorporates the four MOX fuel lead assemblies and 72 fresh low enriched uranium ("LEU") fuel assemblies. Duke has also developed a backup loading pattern using only the LEU fuel assemblies. If it becomes apparent that the MOX fuel lead assemblies will not be available for use, Duke will be required to expend substantial additional resources to design and validate the all-LEU core. In order to accomplish this work in the available time before C1C16 startup, Duke must initiate the all-LEU core design work around March 1, 2005. Duke, of course, does not want to engage in this complex process unnecessarily.

Manufacturing and Transportation of MOX Fuel Assemblies

In the February 27, 2003, MOX fuel lead assembly license amendment request, Duke requested that NRC issue the reactor operating license amendment by August 2004. By requesting this date, Duke hoped to resolve licensing issues associated with MOX fuel lead assemblies before the plutonium was shipped overseas for MOX fuel fabrication. Unfortunately, due to the limited future availability of the Cadarache MOX fuel fabrication facility, it was necessary to proceed with the transportation and fabrication of the lead assemblies prior to receiving the Catawba operating license amendment. Plutonium oxide powder for the four MOX fuel lead assemblies has been transported Cadarache. The lead assembly fabrication is underway, and should be completed during the winter of 2004-2005. The fuel assemblies will then be transported to the United States for use at Catawba. The transportation schedule is classified information. The assemblies cannot be received at the Catawba site until the Catawba license amendment has been issued.

Catawba Fuel Receipt and Storage

Schedule certainty is important because Catawba receives several shipments of fresh LEU fuel prior to each refueling outage. These shipments are scheduled well in advance with the LEU fuel fabricator. This is necessary because most nuclear plants refuel in the spring and fall, so the fabricators must arrange for transportation of many fuel assemblies to many customers during relatively short time windows.

Also, it cannot be assumed that the MOX fuel delivery can simply be accomplished as soon as the license amendment is received. Delivery of the MOX fuel

assemblies must be arranged through the Department of Energy's Office of Secure Transportation. Given the special considerations involved, MOX fuel receipt must be accomplished in a manner that does not interfere with scheduled LEU fuel deliveries, and vice versa. In addition, the availability of the fuel handling crews is not continuous because the crews have other duties as well. It is not practical for Duke to receive the MOX fuel assemblies once the refueling outage has begun.

Schedule for Amendment

At the October 25, 2004, pre-hearing conference, the Licensing Board decided to use the "fall-back" schedule with hearings in January 2005. The Board further indicated that it would issue a decision on the security contention later than Duke had anticipated. The exact date projected for the decision has not been established, but is understood to be sometime in April 2005. Duke would like to clarify for the record that it still seeks a decision from the Licensing Board in March 2005, based on the current status of the proceeding and all of the considerations discussed above.

Should it prove impossible to use the MOX fuel lead assemblies in C1C16 beginning in the spring of 2005, the next available Catawba operating cycle is C2C15, which begins at Unit 2 in the spring of 2006. Duke is anxious to proceed with qualification of the MOX fuel by the lead assembly program without the year of delay that would result if the lead assemblies are deferred until C2C15. MOX fuel qualification is an essential step in the international program to dispose of surplus weapons plutonium. Deferral to C2C15 would also create additional transportation and storage issues for the lead assemblies prior to use.

Duke respectfully requests that the Licensing Board consider this information in its planning and schedule for a decision on the security contention. If further information is required, please let us know.

Very truly yours,

David A. Repka
Counsel for Duke Energy Corporation

cc: Service List via U.S. mail and e-mail

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